

CLAIMS

What is claimed is:

- 1 1. An apparatus comprising:
2 a conductive land disposed on a first component, the land having a depression shaped to
3 receive a conductive bump extending from a second component; and
4 a layer of a conductive material disposed over the land and the depression, the conductive
5 material layer to form electrical contact with the conductive bump extending from
6 the second component and into the depression.

- 1 2. The apparatus of claim 1, wherein the conductive material layer comprises
2 an anisotropic conductive material.

- 1 3. The apparatus of claim 2, wherein the electrical contact with the
2 conductive bump of the second component is created by compression of the anisotropic
3 conductive material in a region overlying the depression.

- 1 4. The apparatus of claim 3, wherein the anisotropic material comprises an
2 adhesive material to physically attach the conductive bump of the second component to
3 the land.

- 1 5. The apparatus of claim 1, wherein the first component comprises a
2 package substrate and the second component comprises an integrated circuit die.

1 6. The apparatus of claim 1, wherein the first component comprises a circuit
2 board and the second component comprises a package substrate.

1 7. An apparatus comprising:
2 a substrate;
3 a number of conductive lands disposed on the substrate, each of the lands having a
4 depression shaped to receive one of a number of conductive bumps extending
5 from a component; and
6 a layer of an anisotropic conductive material disposed over each of the lands and
7 depressions, the anisotropic conductive material layer on each land to form
8 electrical contact with the mating one conductive bump extending from the
9 component and into the depression of that land.

1 8. The apparatus of claim 7, wherein the electrical contact with the mating
2 one conductive bump of the component is created by compression of the anisotropic
3 conductive material in a region overlying the depression of that land.

1 9. The apparatus of claim 8, wherein the anisotropic material on each land
2 comprises an adhesive material to physically attach the mating one conductive bump of
3 the component to the land.

1 10. The apparatus of claim 9, wherein the anisotropic conductive material of
2 each of the lands comprises a single sheet of material.

1 11. The apparatus of claim 7, wherein the substrate comprises a package
2 substrate and the component comprises an integrated circuit die.

1 12. The apparatus of claim 7, wherein the substrate comprises a circuit board
2 and the component comprises a package substrate.

1 13. An assembly comprising:
2 a first component, the first component having a number of conductive bumps arranged in
3 a pattern;
4 a second component, the second component having a number of lands arranged in a
5 pattern corresponding to the pattern of the leads, each of the lands having a
6 depression shaped to receive a mating one of the number of leads; and
7 a sheet of anisotropic conductive material disposed between the first and second
8 components, the anisotropic conductive material to form electrical contact
9 between each land and its mating one conductive bump.

1 14. The assembly of claim 13, wherein the electrical contact between each
2 land and its mating conductive bump is created by compression of the anisotropic
3 conductive sheet in a region overlying the depression of that land.

1 15. The assembly of claim 14, wherein the anisotropic conductive sheet
2 comprises an adhesive material to physically attach each land to its mating one
3 conductive bump.

1 16. The assembly of claim 13, wherein the first component comprises an
2 integrated circuit die and the second component comprises a package substrate.

1 17. The assembly of claim 13, wherein first component comprises a package
2 substrate and the second component comprises a circuit board.

1 18. A method comprising:
2 providing a land disposed on a substrate;
3 forming a depression in the land, the depression shaped to receive a conductive bump
4 extending from a component; and
5 applying a layer of a conductive material over the land and the depression, the conductive
6 material to form electrical contact between the land and the conductive bump.

1 19. The method of claim 18, wherein the conductive material layer comprises
2 an anisotropic conductive material.

1 20. The method of claim 19, wherein the electrical contact with the conductive
2 bump of the component is created by compression of the anisotropic conductive material
3 in a region overlying the depression.

1 21. The method of claim 20, wherein the anisotropic material comprises an
2 adhesive material to physically attach the conductive bump of the second component to
3 the land.

1 22. The method of claim 18, wherein the substrate comprises a package
2 substrate and the component comprises an integrated circuit die.

1 23. The method of claim 18, wherein the substrate comprises a circuit board
2 and the component comprises a package substrate.

1 24. A method comprising:
2 providing a number of lands disposed on a first component, the lands arranged in a
3 pattern;
4 providing a second component, the second component having a number of conductive
5 bumps arranged in a pattern corresponding to the pattern of the lands;
6 forming a depression in each of the lands, each depression shaped to receive a mating one
7 of the conductive bumps of the second component;
8 placing a sheet of an anisotropic conductive material between the lands of the first
9 component and the conductive bumps of the second component; and
10 forming electrical connections between the lands and the conductive bumps using the
11 sheet of anisotropic conductive material.

1 25. The method of claim 24, wherein forming the electrical connections
2 comprises compressing the anisotropic conductive material in regions overlying the
3 depressions formed in the lands.

1 26. The method of claim 24, further comprising attaching the second
2 component to the first component.

1 27. The method of claim 26, wherein the anisotropic conductive material
2 comprises an adhesive material and the anisotropic material is used to attach the first and
3 second components.

1 28. The method of claim 26, comprising aligning the first and second
2 components using the depressions formed in the lands.

1 29. The method of claim 24, wherein the first component comprises a package
2 substrate and the second component comprises an integrated circuit die.

1 30. The method of claim 24, wherein the first component comprises a circuit
2 board and the second component comprises a package substrate.

1 31. A system comprising:
2 a memory; and
3 a processing device coupled with the memory, the processing device including
4 a die, the die having a number of conductive bumps arranged in a pattern,
5 a package substrate, the package substrate having a number of lands
6 arranged in a pattern corresponding to the pattern of the conductive
7 bumps, each of the lands having a depression shaped to receive a
8 mating one of the conductive bumps, and
9 a sheet of anisotropic conductive material disposed between the die and
10 package substrate, the anisotropic conductive material to form
11 electrical contact between each land and its mating one conductive
12 bump.

1 32. The system of claim 31, wherein the electrical contact between each land
2 and its mating conductive bump is created by compression of the anisotropic conductive
3 sheet in a region overlying the depression of that land.

1 33. The system of claim 32, wherein the anisotropic conductive sheet
2 comprises an adhesive material to physically attach each land to its mating one
3 conductive bump.